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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/274,608 03/23/99 FEDERMAN

V P-5426

EXAMINER

WM02/0703

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ART UNIT

PAPER NUMBER

2635

DATE MAILED:

07/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/274,608

Applicant(s)

FEDERMAN, VLADIMIR

Examiner

Matsuichiro Shimizu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 March 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. The phrase "is disclosed" in line two of abstract should be avoided which can be implied.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C.103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-5, 10 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maletsky (6,104,279) in view of Reis-902 et al. (5,686,902).
3. Regarding claim 1, Maletsky discloses a system of communicating (c 3, ls 47-58, base station and remote units) between a master communication device and at least one slave communication device within the interrogation field of the reader unit and for identifying said slave, the system comprising: a master communication device (c 3, ls 47-58, base station), said master establishing the interrogation field of the reader unit; at least one slave communication device having a unique binary identification number (c 3, ls 47-58, remote units); and said

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master (c 3, ls 47-58, broadcast; c 4, ls 34-48, responding with header), after receiving said at least one slave, sending a command (c 4, ls 49-54, interrogator transmitting ACK) to said at least one slave for said at least one slave to provide said unique binary identification (c 4, ls 61-67, tag sending ID) number, and said at least one slave receiving said command and providing information to said master, said information being representative of bits of said unique binary identification number (c 4, ls 61-67 and c 5, ls 1, tag sending ID). But Maletsky does not disclose a particular geographic area or coverage area.

However, Reis-902 discloses, in the art of transponder system, a particular geographic area or coverage area for tags (c 9, ls 8-26, ls communication region-less than one mile from the interrogator) to calculate communication capacity (c 9, ls 8-26, 50 to 1000 tags within one mile of radius). Furthermore, one skilled in the art recognizes , a particular geographic area or coverage area of base station and the interrogation field of the reader unit provide tag response region. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include, a particular geographic area or coverage area for tags in the device of Maletsky as evidenced by Reis-902 because Maletsky suggest the interrogation field of the reader unit and Reis-902 teaches , a particular geographic area or coverage area for tags so that estimated communication capacity is calculated.

4. Regarding claim 4, Maletsky continues, as disclosed in claim 1, to disclose said first set of one or more slaves receive an expected acknowledgment from said master within a predetermined time period after said first set of one or more slaves provide said information representative of a bit of said unique binary identification, and said second set of one or more slaves entering an idle state after not receiving an expected acknowledgment from said master

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within a predetermined time period after said second set of one or more slaves provide said information representative of a bit of said unique binary identification (abstract ls 5-15, remote unit transmits bit information associated with ID of the unit upon detecting ACK during a first window of time, and not transmit bit information associated with ID of the unit upon not detecting ACK during a first window of time).

5. Regarding claim 5, Maletsky continues, as disclosed in claim 4, to disclose master transmits an ACK during a first window of time (abstract, ls 5-6). But Maletsky is silent on said window starts a predetermined time after said command is sent by said master.

However, Reis-902 discloses, in the art of transponder system, said window starts a predetermined time after said command is sent by said master (c 13, ls 59-67 and c 14, ls 1-12, batch collection period started by interrogator) to reduce communication contention. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include said window starts a predetermined time after said command is sent by said master in the device of Maletsky as evidenced by Reis-902 because Maletsky suggests master transmits an ACK during a first window of time and Reis-902 teaches said window starts a predetermined time after said command is sent by said master to reduce communication contention.

6. Claim 10 recites a method of operation corresponding to tag system with anti-collision features of claim 1. The method claimed is obvious in that it parallels the implementation of system and method for to tag system with anti-collision features indicated in claim 1 in performing each of the functional operations of tag system with anti-collision features. Accordingly, the inventive embodiments set forth in claim 10 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that

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rejection of the limitations expressed in claim 10 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claim 1.

7. Claim 13 recites a method of operation corresponding to tag system with anti-collision features of claims 1 and 4. The method claimed is obvious in that it parallels the implementation of system and method for to tag system with anti-collision features indicated in claims 1 and 4 in performing each of the functional operations of tag system with anti-collision features. Accordingly, the inventive embodiments set forth in claim 13 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claim 13 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1 and 4.

8. Claims 14-15 recite a method of operation corresponding to tag system with anti-collision features of claims 1, 4 and 13. The method claimed is obvious in that it parallels the implementation of system and method for to tag system with anti-collision features indicated in claims 1, 4 and 13 in performing each of the functional operations of tag system with anti-collision features. Accordingly, the inventive embodiments set forth in claims 14-15 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claims 14-15 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1, 4 and 13.

9. Claims 16-18 recite a method of operation corresponding to tag system with anti-collision features of claims 7-9 and 15. The method claimed is obvious in that it parallels the implementation of system and method for to tag system with anti-collision features indicated in

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claims 7-9 and 15 in performing each of the functional operations of tag system with anti-collision features. Accordingly, the inventive embodiments set forth in claims 16-18 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claims 16-18 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 7-9 and 15.

10. Claims 2-3, 6-9, 11-12 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maletsky in view of Reis-902 as applied to claim 1 above, and further in view of Dodd et al. (5,339,073).

11. Regarding claim 2, Maletsky discloses the selected tag transmitting bit pattern associated with tag ID to the interrogator (c 4, ls 61-67 and c 5, ls 1-17, selected tag; c 5, ls 26-40, unselected tag). But Maletsky in view of Reis-902 fails to disclose each of said plurality of time windows having first and second time periods.

However, Dodd discloses, in the art of tag interrogation system, each of said plurality of time windows having first and second time periods so that bit-by-bit interrogation is performed using tree algorithm to provide tag ID (c 5, ls 15-20 and c 5, ls 57-61, two adjacent slots corresponding to first and second time period, expected field corresponding to received two time slots by interrogator is the time window). Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include in the device of Maletsky as evidenced by Dodd because Maletsky suggest discloses the selected tag transmitting bit pattern associated with tag ID to the interrogator and Dodd teaches each of said plurality of time

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windows having first and second time periods so that bit-by-bit interrogation is performed using tree algorithm to provide tag ID.

12. Regarding claim 3, Maletsky continues, as disclosed in claim 2, to disclose said master sending an acknowledgment to said at least one slave within a predetermined time after receiving information from slave (abstract ls 1-7, base unit transmits an ACK during a first window of time).

13. All subject matters in claim 6 are disclosed in claims 1-4, and therefore, rejections of the subject matters expressed in claim 6 are met by references and associated arguments applied to rejections of claims 1-4.

14. All subject matters in claim 7 are disclosed in claims 1-4 and 6, and therefore, rejections of the subject matters expressed in claim 7 are met by references and associated arguments applied to rejections of claims 1-4 and 6.

15. Regarding claim 8, Reis continues, as disclosed in claim 6, to disclose providing a unique binary identification number if said one slave has left and re-entered said field of coverage (c 4, ls 43-58, interrogator continuously broadcasts interrogation request to the tag leaving and re-entering said field of coverage).

16. Regarding claim 9, Maletsky continues, as disclosed in claim 6, to disclose each of said remaining slaves is determined by said master as still in said field of coverage and commanded to identify itself (Fig. 2, c 6, ls 14-31, interrogator monitors header for the rest of unselected tags).

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17. All subject matters in claim 19 are disclosed in claims 1-2, and therefore, rejections of the subject matters expressed in claim 19 are met by references and associated arguments applied to rejections of claims 1-2.

18. Claims 11-12 and 20 recite a method of operation corresponding to tag system with anti-collision features of claims 1-3. The method claimed is obvious in that it parallels the implementation of system and method for to tag system with anti-collision features indicated in claims 1-3 in performing each of the functional operations of tag system with anti-collision features. Accordingly, the inventive embodiments set forth in claims 11-12 and 20 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claims 11-12 and 20 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1-3.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. MacLellan et al. (5,940,006), enhanced uplink modulated backscatter system, fd 12/12/1995, id 8/17/1999; Brophy et al. (4,071,908), adaptive polling technique, fd 3/17/1977, id 1/31/1978.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (703) 306-5841. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Micheal Horabik, can be reached on (703-305-4704). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

June 27, 2001

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

